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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,882	06/14/2006	Makoto Watanabe	OKA-0235	9743
74384 7590 03/04/2008 Cheng Law Group, PLLC 1100 17th Street, N.W. Suite 503 Washington, DC 20036				
EXAMINER				
TSAY, MARSHA M				
ART UNIT		PAPER NUMBER		
1656				
MAIL DATE		DELIVERY MODE		
03/04/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/582,882

**Applicant(s)**

WATANABE ET AL.

**Examiner**

Marsha M. Tsay

**Art Unit**

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)  
Paper No(s)/Mail Date 08/15/06; 08/27/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's election without traverse of Group II, claims 4-8, in the reply filed on December 18, 2007 is acknowledged.

Claims 1-3, 9-10 have been withdrawn from further consideration by the Examiner because they are drawn to non-elected inventions. Claims 4-8 are currently under examination.

Priority: The instant application claims foreign priority to JP 2003-430898, filed December 25, 2003.

#### ***Claim Objections***

Claim 5 is objected to because of the following informalities: there should be an "a" between "is" and "tryptophan". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is drawn to a method for enrichment/separation of a protein or peptide, comprising separating a protein or peptide containing an amino acid residue with a  $\pi$  electron-containing modifying group, which is modified with a  $\pi$  electron-containing compound, by using a media with a  $\pi$  electron-containing group. It is unclear what is being modified, the amino acid

residue or the  $\pi$  electron-containing modifying group, since as currently written the claim reads as if the protein or peptide is separated with a  $\pi$  electron-containing modifying group.

Claims 4-8 are indefinite because the exact steps of the enrichment method are not specified. In claim 4, it is unclear if the method is separating a protein containing an amino acid residue with a  $\pi$  electron modifying group or if it is separating any protein/peptide. The preamble recites the separation of any protein/peptide, but the separation step appears to require a modification. Further, neither the claims nor the specification appear to disclose explicit definitions for " $\pi$  electron-containing modifying group", " $\pi$  electron-containing compound," and " $\pi$  electron-containing group."

In claim 4, it is unclear if the " $\pi$  electron-containing compound" is the same as the " $\pi$  electron-containing group" or if it is different. Also, it is unclear if the  $\pi$  electron-containing group is constituent of the media or if it is an additional agent, i.e. "media comprising a  $\pi$  electron-containing group" or "media in addition to a  $\pi$  electron-containing group". Further clarification is requested.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Boccu et al. (1970 Eur J Biochem 13: 188-192). Boccu et al. teach a method for the separation and purification of

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a protein/peptide containing a tryptophan residue (p. 188). Boccu et al. teach protein was dissolved in a solution of 2-nitrophenylsulfenyl-Cl or 4-nitrophenylsulfenyl-Cl (p. 188 col. 2; claims 4-8). After stirring, the protein was precipitated and separated by centrifugation (p. 188-189; claims 4-8).

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marsha M. Tsay whose telephone number is (571)272-2938. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Kathleen Kerr Bragdon can be reached on 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Maryam Monshipouri/

Primary Examiner, Art Unit 1656

February 27, 2008

